www.neobiolab.com info@neobiolab.com 888.754.5670, +1 617.500.7103 United States 0800.088.5164, +44 020.8123.1558 United Kingdom

# SCIENTIFIC

# GM CSF Human, Pichia

**Description:**Granulocyte Macrophage Colony Stimulating Factor Human Recombinant produced in Yeast is a single, glycosylated, polypeptide chain containing 127 amino acids and having a molecular mass of 26-32 kDa. rhGMCSF differs from the natural human GM-CSF by a substitution of leucine at position 23 (R to L), and the carbohydrate moiety may be different from the native protein. GM-CSF is purified by proprietary chromatographic techniques.

**Synonyms:**CSF-2, MGI-1GM, GM-CSF, Pluripoietin-alpha, Molgramostin, Sargramostim, MGC131935, MGC138897.

Source: Pichia Pastoris.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

**Amino Acid Sequence:**The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-Ala-Arg-Ser.

Purity: Greater than 97.0% as determined by 1. Analysis by RP-HPLC.2. Analysis by SDS-PAGE.

### Formulation:

The protein was lyophilized from a concentrated (1mg/ml) solution containing 10mM phosphate buffer pH 7.0, 40 mg mannitol and 10 mg sucrose.

### Stability:

Lyophilized Granulocyte Macrophage Colony Stimulating Factor although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GMCSF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

### Solubility:

It is recommended to reconstitute the lyophilized Granulocyte Macrophage Colony Stimulating Factor in sterile 18M-cm H2O not less than  $100\mu g/ml$ , which can then be further diluted to other aqueous solutions.

## Introduction:

GMCSF is a cytokine that controls the production, differentiation, and function of granulocytes and macrophages. The active form of the protein is found extracellularly as a homodimer. This gene has been localized to a cluster of related genes at chromosome region 5q31, which is known to be associated with interstitial deletions in the 5q- syndrome and acute myelogenous leukemia. Other genes in the cluster include those encoding interleukins 4, 5, and 13.GM-CSF stimulates the growth and differentiation of hematopoietic precursor cells from various lineages, including granulocytes, macrophages, eosinophils and erythrocytes.

# **Biological Activity:**

The ED50 as determined by the dose-dependant stimulation of the proliferation of human TF-1







www.neobiolab.com info@neobiolab.com 888.754.5670, +1 617.500.7103 United States 0800.088.5164, +44 020.8123.1558 United Kingdom cells (human erythroleukemic indicator cell line) is < 0.183 ng/ml, corresponding to a Specific Activity of 5,500,000IU/mg.



To place an order, please Click HERE.

Catalog #:CYPS-331

For research use only.





